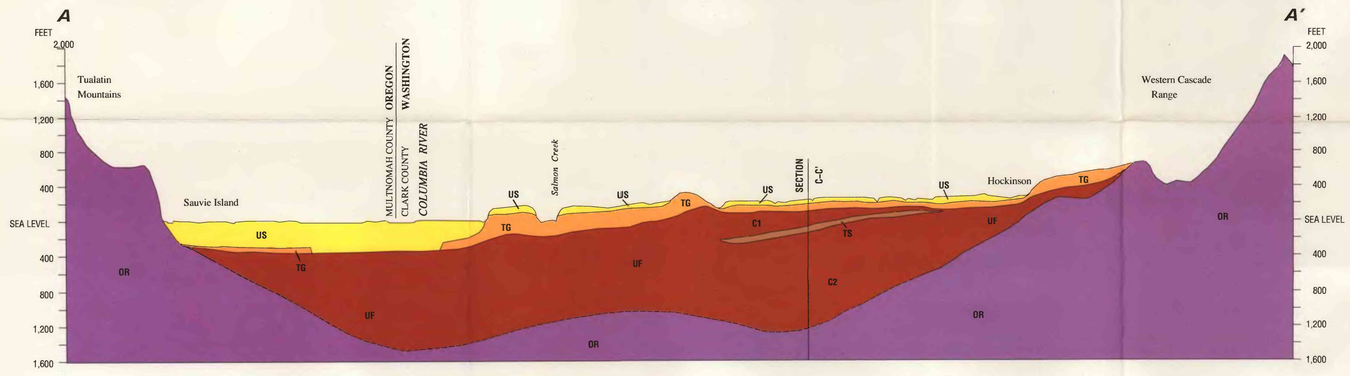
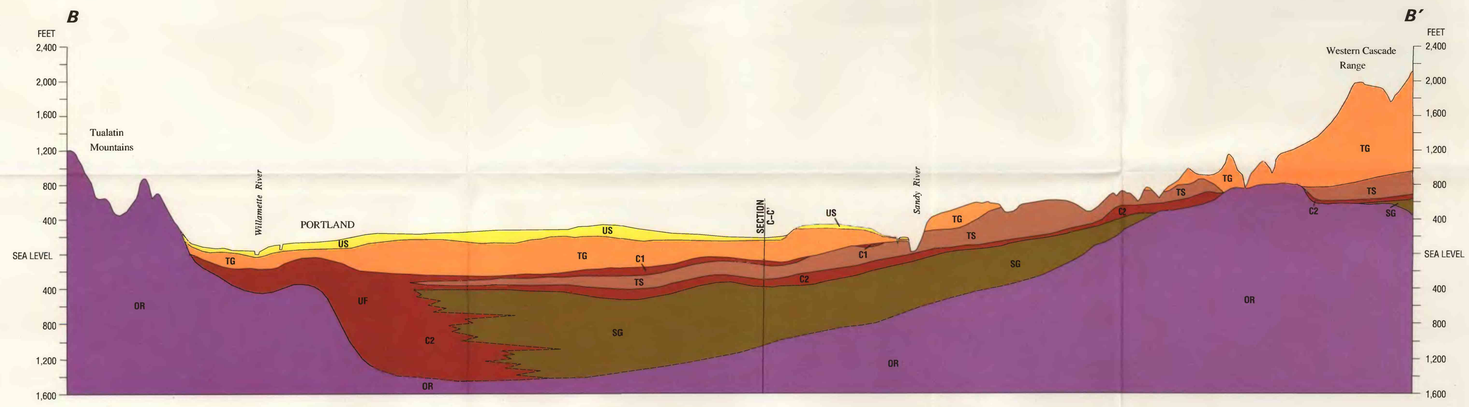
U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

Prepared in cooperation with the
CITY OF PORTLAND BUREAU OF WATER WORKS,
INTERGOVERNMENTAL RESOURCE CENTER, and
OREGON WATER RESOURCES DEPARTMENT

WATER–RESOURCES INVESTIGATIONS REPORT 90–4196
PLATE 2



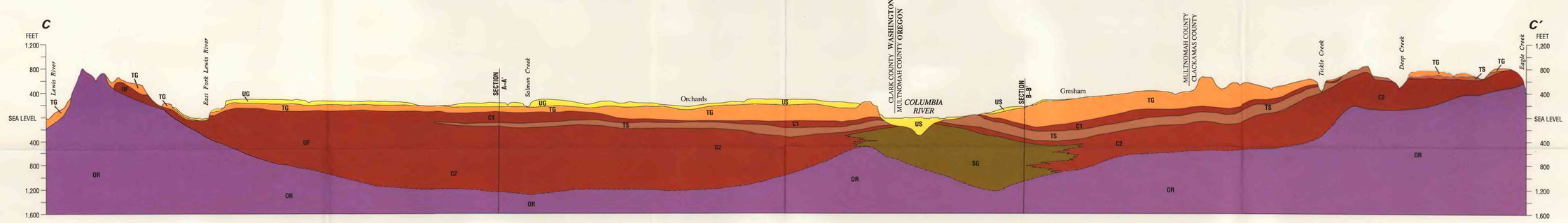


SUBSYSTEM	SYMBOL	HYDROGEOLOGIC UNIT	DESCRIPTION
UPPER SEDIMENTARY (Quaternary and Pliocene)	US	UNCONSOLIDATED SEDIMENTARY AQUIFER	Alluvium along major rivers and Pleistocene catastrophic flood deposits that mantle much of the basin.
	TG	TROUTDALE GRAVEL AQUIFER	Cemented sand and gravel deposits of the Troutdale Formation. Also includes Cascadian volcanic conglomerates (Gresham, Springwater, and Walters Hill Formations), Pleistocene terrace gravel locally along rivers, Boring Lava and High Cascade volcanics.
LOWER SEDIMENTARY (Pliocene) — UNDIFFERENTIATED FINE-GRAINED UNIT	UF	UNDIFFERENTIATED FINE-GRAINED UNITS	Mudstone, siltstone, and claystone with some vitric sandstone. Considered Troutdale Formation; however, where the Troutdale sandstone aquifer is not present, it cannot be distinguished from Sandy River Mudstone.
LOWER SEDIMENTARY (Pliocene) — DIFFERENTIATED UNITS	C1	CONFINING UNIT 1	
	TS	TROUTDALE SANDSTONE AQUIFER	Vitric sandstone and conglomerate. Correlative with Troutdale Formation.
	C2	CONFINING UNIT 2	Mudstone, siltstone, and claystone mapped as Sandy River Mudstone.
	SG	SAND AND GRAVEL AQUIFER	Silty to gravelly sand within Sandy River Mudstone.
OLDER ROCKS (Miocene-Eocene)	OR	OLDER ROCKS	Includes Skamania Volcanics, Goble Volcanics, marine sediments of the Pittsburg Bluff and Scappoose Formations, basalts of Waverly Heights, Columbia River Basalt Group and volcanic rocks of the Rhododendron Formation.

EXPLANATION

CONTACT—Approximately located. Dashed where inferred.

LINE OF HYDROGEOLOGIC SECTIONS SHOWN ON PLATE 1



0 1 2 3 4 5 MILES
0 1 2 3 4 5 KILOMETERS

HYDROGEOLOGIC SECTIONS OF THE PORTLAND BASIN

By
R.D. Swanson, W.D. McFarland, J.B. Gonthier, and J.M. Wilkinson

1993

Hydrogeology modified from sources shown on geologic mapping index.

Swanson, R.D., McFarland, W.D., Gonthier, J.B., and Wilkinson, J.M., 1992, A description of hydrogeologic units in the Portland basin, Oregon and Washington: U.S. Geological Survey Water–Resources Investigations Report 90–4196